

## CLAIMS

1. An adiponectin receptor expression-enhancing agent, comprising a FoxoI protein or a FoxoI gene.  
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2. An adiponectin resistance-improving agent, comprising a FoxoI protein or a FoxoI gene as an active ingredient.
3. An insulin resistance-improving agent, comprising a FoxoI protein or a  
10 FoxoI gene as an active ingredient.
4. An obesity-preventing or improving agent, comprising a FoxoI protein or a FoxoI gene as an active ingredient.
- 15 5. A diabetes-preventing or treating agent, comprising a FoxoI protein or a FoxoI gene as an active ingredient.
6. An arteriosclerosis-preventing or treating agent, comprising a FoxoI protein or a FoxoI gene as an active ingredient.  
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7. An adiponectin receptor expression-enhancing agent, comprising a PI3 (Phosphoinositide 3)-kinase-FoxoI pathway inhibitor.
8. The adiponectin receptor expression-enhancing agent of claim 7, wherein the  
25 PI3-kinase-FoxoI pathway inhibitor is a PI3-kinase inhibitor.
9. The adiponectin receptor expression-enhancing agent of claim 8, wherein the PI3-kinase inhibitor is LY294002.
- 30 10. An adiponectin resistance-improving agent, comprising as an active ingredient the adiponectin receptor expression-enhancing agent of any one of claims 7 to 9.
- 35 11. An insulin resistance-improving agent, comprising as an active ingredient the adiponectin receptor expression-enhancing agent of any one of claims 7 to 9.

12. An obesity-preventing or improving agent, comprising as an active ingredient the adiponectin receptor expression-enhancing agent of any one of claims 7 to 9.

5           13. A diabetes-preventing or treating agent, comprising as an active ingredient the adiponectin receptor expression-enhancing agent of any one of claims 7 to 9.

10           14. An arteriosclerosis-preventing or treating agent, comprising as an active ingredient the adiponectin receptor expression-enhancing agent of any one of claims 7 to 9.

15           15. An adiponectin receptor expression-suppressing agent, comprising insulin or insulin gene.

20           16. A method of screening for an adiponectin receptor expression-enhancing agent, an adiponectin resistance-improving agent, an insulin resistance-improving agent, an obesity-improving agent, a therapeutic agent for diabetes, or a therapeutic agent for arteriosclerosis, comprising the step of contacting a test substance with PI3-kinase and a PI3-kinase substrate.

25           17. A method of screening for an adiponectin receptor expression-enhancing agent, an adiponectin resistance-improving agent, an insulin resistance-improving agent, an obesity-improving agent, a therapeutic agent for diabetes, or a therapeutic agent for arteriosclerosis, wherein the method comprises the step of contacting a test substance with Akt and FoxoI.